Author index

(BR): Book review
(L): Letter to the Editor

Abbas, Abul K., A reassessment of the mechanisms of antigen-specific T-cell-dependent B-cell activation, 89
Abe, Ryo and Hodes, Richard J., The Mls system: non-MHC genes that encode strong T-cell stimulatory determinants, 230
Amber, Ina J., Clinical Approach to Infection in the Compromised Host, (BR) 361
Anderson, Paul, Morimoto, Chikao, Breitmeyer, James B. and Schlossman, Stuart F., Regulatory interactions between members of the immunoglobulin superfamily, 199
Askonas, Brigitte A. and Klaus, Gerry G.B., Obituary: John H. Humphrey (1915–1987), 100

Bach, Fritz H., Ruggero Ceppellini (1917–1988), 335
Baldwin, R.W., Principles of Cancer Biotherapy, (BR) 244
Befus, Dean, See Carter, Lisa, (L) 368
Berd, David, Immunotherapy of cancer using IL-2, (L) 193
Berke, Gideon, Multiple mechanisms of lymphocyte-mediated killing, (L) 294
Beutler, Bruce, See Cerami, Anthony, 28
Beutler, Bruce, Tumour Necrosis Factor and Related Cytokines (CIBA Foundation Symposium 131), (BR) 183
Beverley, Peter, Lymphocytes, A Practical Approach, (BR) 245
Bidwell, Jeffrey, DNA-RFLP analysis and genotyping of HLA-DR and DQ antigens, 18, erratum 131
Bidwell, Jeffrey L., Bidwell, Elizabeth A. and Savage, David A., Is HLA class II allogenotyping universally applicable? A reply, (L) 256
Bidwell, Elizabeth A., See Bidwell, Jeffrey L., (L) 256
Bij, Wim van der, See Torensma, Ruurd, (L) 255
Billiau, Alfons, Gamma-interferon: the match that lights the fire?, 37
Billiau, Alfons, See Dijkmans, Roger, (L) 369
Birshtein, Barbara K., B cells at the molecular level, 187
Bland, Paul, MHC class II expression by the gut epithelium, 174
Bona, C., See Capra, J.D., 98
Borrebaeck, Carl A.K., Human mAbs antibodies produced by primary in-vitro immunization, 355
Bos, Jan D., Immunopathology of the Skin (3rd Edition), (BR) 63
Bottazzo, Gian Franco, See Pujol-Borrell, Ricardo, 303
Bottomly, Kim, A functional dichotomy in $CD4^+$ T lymphocytes, 268
Boylston, A.W. and Lancaster, Fiona, Immune Recognition; Lymphokines; Complement, (BR) 401
Breitmeyer, James B., See Anderson, Paul, 199
Brezinschek, Hans-Peter, See Kroemer, Guido, 163
Burgess, A.W., Cell surface heparan sulphate implicated in haemopoietic growth factor signalling, 267
Burkhardt, K., See Charlton, B., 165

Cambiaggi, C., See Manca, F., 300
Campbell, R. Duncan, See Trowsdale, John, 34
Campos-Neto, Antonio and Stashenko, Philip P., Interleukin 1 and T-cell activation, (L) 131
Capra, J.D. and Bona, C., Idiotypes: Practical advances from fundamental concepts, 98
Carney, Walter, Human tumor antigens and specific tumor therapy, 363
Carter, Lisa, DenHollander, Neal, Ramaswamy, K., Riley, Doone and Befus, Dean, Expression of TCR types on gut intraepithelial lymphocytes, (L) 368
Celada, F., See Manca, F., 300
Cerami, Anthony and Beutler, Bruce, The role of cachectin/TNF in endotoxic shock and cachexia, 28
Ceredig, Rhodri, See Lynch, Felicity, 7
Charlton, B., Burkhardt, K. and Mandel, T.E., How important is the L3T4 antigen to $L3T4^+$ cell function *in vivo*?, 165
Christiansen, Judy, See O'Garra, Anne, 45
Clark, William R., Perforin – a primary or auxilliary lytic mechanism?, 101
Clark, Steven C., See Wong, Gordon G., 137
Cohen, Irun R. and Weiner, Howard L., T-cell vaccination, 332
Cook, Graham P., See Neuberger, Michael S., 278
Cooke, Anne, Immunogenetics of Endocrine Disorders, (BR) 401
Corbet, Sylvie, See Schiff, Claudine, 10
Cormann, Nadine, See Heinen, Ernst, 240
Cosman, David, Colony-stimulating factors *in vivo* and *in vitro*, 97
Crispe, Nick, Mechanisms of self-tolerance, 329

de la Hera, Antonio, See Marcos, Miguel A.R., 204
Delovitch, Terry L., Semple, John W. and Phillips, M. Laurie, Influence of antigen processing on immune responsiveness, 216
DenHollander, Neal, See Carter, Lisa, (L) 368
Dexter, T.M., See Lord, B.I., 376
Dierich, Manfred P., See Fuchs, Dietmar, 150
Dijkmans, Roger and Billiau, Alfons, Gamma-interferon in intracellular microbial infections, (L) 369
Dorshkind, Kenneth, Differentiation Antigens in Lymphohemopoietic Tissues, (BR) 283
Durum, Scott K., Recombinant Lymphokines and their Receptors, (BR) 95
Dustin, Michael L., Staunton, Donald E. and Springer, Timothy A., Supergene families meet in the immune system, 213
Dyer, P.A., See Grennan, D.M., 33
Dziarski, Roman, Autoimmunity: polyclonal activation or antigen induction?, 340

Eberhard, Hans J. Muller, See Jung, Gundram, 257
Edidin, Michael, Function by association? MHC antigens and membrane receptor complexes, 218
Emmrich, F., Cross-linking of CD4 and CD8 with the T-cell receptor complex: quaternary complex formation and T-cell repertoire selection, 296

Faessler, Reinhard, See Kroemer, Guido, 163
Faist, Eugen, See Green, Douglas R., 253
Feldmann, Marc, T-cell activation in health and disease, 121
Fenoglio, D., See Manca, F., 300
Ferguson, Anne, Immunology of the Gastrointestinal Tract and Liver, (BR) 282
Fink, Pamela J., Stop and go in the thymus, 377
Fischer-Lindahl, Kirsten, See Janeway Jr, Charles A., 125
Fitch, Frank, Lancki, David and Havran, Wendy, Koch's postulates and the molecular biology of T-cell function, 41
Fitzgerald, Lynn, Exercise and the immune system, 337
Fleischer, Bernhard and Schrezenmeier, Hubert, Do CD4 or CD8 molecules provide a regulatory signal in T-cell activation?, 132
Forman, James, See Mann, Donald W., (L) 6
Fougereau, Michel, See Schiff, Claudine, 10
France, Thierry De, See O'Garra, Anne, 45
Frelinger, Jeffrey A., Gene regulation, organization and function, 3
Fuchs, Dietmar, Hausen, Arno, Reibnegger, Gilbert, Werner, Ernst R., Dierich, Manfred P. and Wachter, Helmut, Neopterin as a marker for activated cell-mediated immunity: application in HIV infection, 150

Galabru, Julien, See Hovanessian, Ara G., (L) 161
Gaspar, Maria-Luisa, See Marcos, Miguel A.R., 204
Goding, James, Immunochemical Methods in Cell and Molecular Biology; Biological Techniques Series, (BR) 360
Goldsmith, Mark A. and Weiss, Arthur, New clues about T-cell antigen receptor complex function, 220
Golub, Edward S., Can the transgenic expression of Thy-1 reveal its function?, 107

Good, Michael F., Kumar, Sanjai and Miller, Louis H., The real difficulties for malaria sporozoite vaccine development: non-responsiveness and antigenic variation, 351
Gordon, John, Lymphokines and Interferons: A Practical Approach, (BR) 120
Green, Douglas R. and Faist, Eugen, Trauma and the immune response, 253
Grennan, D.M. and Dyer, P.A., Immunogenetics and rheumatoid arthritis, 33

Haas, Werner and Ploegh, Hidde, Immunology: A Sythesis, (BR) 282
Hadden, John W., Transmembrane signals in the activation of T lymphocytes by mitogenic antigens, 235
Haegert, David G. and Smith, J.L., Unexpected mAb reactivities in lymphoid neoplasia, (L) 193
Haegert, David G., Michaud, Monique and Schwab, Clark, Is HLA class II allogenotyping universally applicable?, (L) 256
Hafler, David A., Multiple Sclerosis: Immunologic, Diagnostic and Therapeutic Aspects; Clinical Neuroimmunology, (BR) 243
Hall, Joe, Bede Morris (1927–1988), 364
Hammarstrom, Lennart, See Olsson, Per G., (L) 35
Hammerling, Ullrich, See Janeway Jr, Charles A., 125
Harnett, Margaret M. and Klaus, Gerry G.B., G protein regulation of receptor signalling, 315
Hausen, Arno, See Fuchs, Dietmar, 150
Havran, Wendy, See Fitch, Frank, 41
Hayday, Adrian, See Janeway Jr, Charles A., 73
Heinen, Ernst, Cormann, Nadine and Kinet-Denoel, Cecile, The lymph follicle: a hard nut to crack, 240
Hemler, Martin E., Adhesive protein receptors on hematopoietic cells, 109
Hercend, T. and Schmidt, R.E., Characteristics and uses of natural killer cells, 291
Herskowitz, Ahvie, See Rose, Noel R., 117
Hodes, Richard J., See Abe, Ryo, 230
Hogg, Nancy, The structure and function of Fc receptors, 185
Holmes, Kevin L. and Morse III, Herbert C., Murine hematopoietic cell surface antigen expression (Centrefold), 344
Holton, J., Fundamentals of Medical Bacteriology and Mycology, (BR) 359
Horsfall, A.C., Detection and clinical relevance of anti-DNA/anti-ENA antibodies, 159
Houghton, Alan N., Building a better monoclonal antibody, 265
Hovanessian, Ara G., Galabru, Julien, Riviere, Yves and Montagnier, Luc, Efficiency of poly(A) .poly (U) as an adjuvant, (L) 161
Hozumi, Nobumichi, See Tisch, Roland, 145
Hughes-Jones, N.C., Monoclonal antibodies as potential blood typing reagents, 68

Imboden, John B., The regulation of intracellular signals during lymphocyte activation, 17
Inglis, John R., Back to the future of Immunology Today, 285
Isakov, Noah, Cell activation and signal initiation, 251
Isenberg, David A., See Shoenfeld, Yehuda, 178

Janeway Jr, Charles A., Jones, Barry and Hayday, Adrian, Specificity and function of T cells bearing gamma – delta receptors, 73
Janeway Jr, Charles A., Fischer-Lindahl, Kirsten and Hammerling, Ullrich, The Mls locus: new clues to a lingering mystery, 125
Jones, Barry, See Janeway Jr, Charles A., 73
Jung, Gundram and Eberhard, Hans J. Muller, An *in-vitro* model for tumor immunotherapy with antibody heteroconjugates, 257

Kammer, Gary M., The adenylate cyclase-cAMP-protein kinase A pathway and regulation of the immune response, 222
Kampinga, J., See Nieuwenhuis, P., 372
Kappler, John, See Marrack, Philippa, 308
Karrenbeld, A., See Nieuwenhuis, P., 372
Kaufmann, Stefan H.E., $CD8^+$ T lymphocytes in intracellular microbial infections, 168
Kemshead, J.T., Cancer Diagnosis *in vitro* Using Monoclonal Antibodies, (BR) 326
Kinet-Denoel, Cecile, See Heinen, Ernst, 240
Kisielow, Pawel, The true function of the thymus, (L) 367
Klaus, Gerry G.B., See Askonas, Brigitte A., 100
Klaus, Gerry G.B., Lymphocyte receptors, signals and cytokines at Newport Beach, 157
Klaus, Gerry G.B., See Harnett, Margaret M., 315
Knowles, Susan, Blood Transfusion (Methods in Hematology Vol. 17), (BR) 400
Kroemer, Guido, Brezinschek, Hans-Peter, Faessler, Reinhard, Schauenstein, Konrad and Wick, Georg, Physiology and pathology of an immuno-endocrine feedback loop, 163
Kumar, Sanjai, See Good, Michael F., 351
Kunkl, A., See Manca, F., 300

Lambris, John D., The multifunctional role of C3, the third component of complement, 387
Lancaster, Fiona, See Boylston, A.W., (BR) 401
Lancki, David, See Fitch, Frank, 41
Langer, Jerome A. and Pestka, Sidney, Interferon receptors, 393
Lanzavecchia, Antonio, Exploiting the immune system's own strategies for immunotherapy, 167
Lechler, R.I., MHC class II molecular structure – permitted pairs?, 76
Lefrançois, Leo, See Thomas, Matthew L., 320
Li Pira, G., See Manca, F., 300
Lipsky, Peter E., See Thiele, Dwain L., (L) 6
Liu, Chau-Ching, See Young, John Ding-E, 14
Liu, Chau-Ching, See Young, John Ding-E, 140
Liu, Chau-Ching, See Young, John Ding-E, (L) 294
Lord, B.I. and Dexter, T.M., Purification of haemopoietic stem cells – the end of the road?, 376
Lynch, Felicity and Ceredig, Rhodri, Ly-24 (Pgp-1) expression by thymocytes and peripheral T cells, 7

MacDonald, Thomas T., Nutrition and Immunology (Contemporary Issues in Clinical Nutrition Vol. 11), (BR) 402
Makgoba, Malegapuru W., See Sanders, Martin E., 195
Manca, F., Fenoglio, D., Kunkl, A., Cambiaggi, C., Li Pira, G. and Celada, F., B cells on the podium: regulatory roles of surface and secreted immunoglobulins, 300
Mandel, T.E., See Charlton, B., 165
Mann, Donald W. and Forman, James, Lack of tolerance to a soluble MHC class I antigen, (L) 6
Marcos, Miguel A.R., Toribio, M-L., de la Hera, A., Marquez, C., Gaspar, M-L and Martinez-A, C., Mutual cell interactions and the selection of immune repertoires: implication in autoimmunity, 204
Marquez, Carlos, See Marcos, Miguel A.R., 204
Marrack, Philippa and Kappler, John, The T-cell repertoire for antigen and MHC, 308
Martinez-A, Carlos, See Marcos, Miguel A.R., 204
Mason, Don, See Powrie, Fiona, 274
Michaud, Monique, See Haegert, David G., (L) 256
Micklem, H.S., Cytological analysis of lymphocytes, 1
Milich, David R., T and B-cell recognition of hepatitis B viral antigens, 380
Miller, Louis H., See Good, Michael F., 351
Montagnier, Luc, See Hovanessian, Ara G., (L) 161
Moretta, Lorenzo, Immunology in Italy, 247
Morgan, David O. and Roth, Richard A., Analysis of intracellular protein function by antibody injection, 84
Morhenn, Vera B., Keratinocyte proliferation in wound healing and skin disease, 104
Morimoto, Chikao, See Anderson, Paul, 199
Morse III, Herbert C., See Holmes, Kevin L., 344
Mosmann, Tim R., Directional release of lymphokines from T cells, 306
Munro, A., Advanced Immunology, (BR) 155

Neu, Nikolaus, See Rose, Noel R., 117
Neuberger, Michael S. and Cook, Graham P., The expression of immunoglobulin genes, 278
Neumann, David A., See Rose, Noel R., 17
Nieuwenhuis, P., Stet, R.J.M., Wagenaar, J.P.A., Wubbena, A.S., Kampinga,

J. and Karrenbeld, A., The transcapsular route: a new way for (self-) antigens to by-pass the blood–thymus barrier?, 372
Nossal, G.J.V., Triumphs and trials of immunology in the 1980s, 286

O'Garra, Anne, Umland, Shelby, France, Thierry De and Christiansen, Judy, B-cell factors are pleiotropic (Centrefold), 45
Old, Lloyd J., See Srivastava, Pramod K., 78
Olsson, Per G, Hammarstrom, Lennart and Smith, C.I. Edvard, Strategies for codon usage in human V_H families, (L) 35

Pabst, Reinhard, The spleen in lymphocyte migration, 43
Panoskaltsis, Angela, see Sinclair, Nicholas R. StC., 260
Parham, Peter, Presentation and processing of antigens in Paris, 65
Parham, Peter, Histocompatibility typing – Mac is back in town, 127
Paul, William E., Lymphokine nomenclature, 366
Pestka, Sidney, See Langer, Jerome A., 393
Phillips, M. Laurie, See Delovitch, Terry L., 216
Ploegh, Hidde, See Haas, Werner, (BR) 282
Polla, Barbara S., A role for heat shock proteins in inflammation?, 134
Powrie, Fiona and Mason, Don, Phenotypic and functional heterogeneity of $CD4^+$ T cells, 274
Prud'homme, Gerald J., Autoimmunity and Autoimmune disease, (BR) 155
Pujol-Borrell, Ricardo and Bottazzo, Gian Franco, Puzzling diabetic transgenic mice: a lesson for human type 1 diabetes?, 303

Ramaswamy, K., See Carter, Lisa, (L) 368
Rammensee, Hans-Georg, GVHD protection and I–J: manifestations of specificity-related T-cell determinants, 70
Reibnegger, Gilbert, See Fuchs, Dietmar, 150
Rigby, William F.C., The immunobiology of vitamin D, 54
Riley, Doone, See Carter, Lisa, (L) 368
Ritter, Mary A., Rozing, Jan and Schuurman, Henk-Jan, The true function of the thymus?, 189
Riviere, Yves, See Hovanessian, Ara G., (L) 161
Rose, Noel R., Herskowitz, Ahvie, Neumann, David A. and Neu, Nikolaus, Autoimmune myocarditis: a paradigm of post-infection autoimmune disease, 117, erratum 276
Rosenberg, Steven A., Immunotherapy of cancer using interleukin-2: current status and future prospects, 58
Roth, Richard A., See Morgan, David O., 84
Rozing, Jan, See Ritter, Mary A., 189
Rudd, Christopher E., A functional dichotomy in $CD4^+$ T lymphocytes, (L) 367

Sachs, David H., See Sykes, Megan, 23
Sachs, David H., See Sundt III, Thoralf M., 342
Sanders, Martin E., Makgoba, Malegapuru W. and Shaw, Stephen, Human naive and memory T cells: reinterpretation of helper-inducer and suppressor-inducer subsets, 195
Sargent, Ian, Starkey, Phyllis and Searle, Roger, MHC class II-positive antigen-presenting cells in the decidua, (L) 160
Savage, David A., See Bidwell, Jeffrey L., (L) 256
Schauenstein, Konrad, See Kroemer, Guido, 163
Schiff, Claudine, Corbet, Sylvie and Fougereau, Michel, The Ig germline gene repertoire: economy or wastage?, 10
Schleimer, Robert P., Inflammation: Basic Principles and Clinical Correlates, (BR) 327
Schlossman, Stuart F., See Anderson, Paul, 199
Schmidt, R.E., See Hercend, T., 291
Schrezenmeier, Hubert, See Fleischer, Bernhard, 132
Schuurman, Henk-Jan, See Ritter, Mary A., 189
Schwab, Clark, See Haegert, David G, (L) 256
Searle, Roger, See Sargent, Ian, (L) 160
Semple, John W., See Delovitch, Terry L., 216
Shaw, Stephen, Immunology: A Short Course, (BR) 182
Shaw, Stephen, See Sanders, Martin E., 195
Shearer, Gene M., See Via, Charles S., 207
Shoenfeld, Yehuda and Isenberg, David A., Mycobacteria and autoimmunity, 178, erratum 276
Sim, Edith, Immunogenetics and rheumatoid arthritis, (L) 132
Simpson, Elizabeth, Sir Peter Medawar 1915–1987, 4
Sinclair, Nicholas R. StC. and Panoskaltsis, Angela, The immunoregulatory apparatus and autoimmunity, 260
Smith, C.I. Edvard, See Olsson, Per G., (L) 35
Smith, Kendall A., The bimolecular structure of the interleukin 2 receptor, 36
Smith, J.L., See Haegert, David G., (L) 193
Springer, Timothy A., See Dustin, Michael L., 213
Srivastava, Pramod K. and Old, Lloyd J., Individually distinct transplantation antigens of chemically induced mouse tumours, 78
Stanworth, Denis R., John Humphrey remembered, (L) 194
Starkey, Phyllis, See Sargent, Ian, (L) 160
Stashenko, Philip P., See Campos-Neto, Antonio, (L) 131
Staunton, Donald E., See Dustin, Michael L., 213
Stet, R.J.M., See Nieuwenhuis, P., 372
Streilein, J. Wayne and Wegmann, Thomas, MHC class II-positive antigen-presenting cells in the decidua: A reply (L) 160
Sundt III, Thoralf M. and Sachs, David H., Applications of molecular biology to transplantation tolerance, 342
Sykes, Megan and Sachs, David H., Mixed allogeneic chimerism as an approach to transplantation tolerance, 23, erratum 131

Tennenbaum, James I., Allergy: an International Textbook, (BR) 95
Thiele, Dwain L. and Lipsky, Peter E., Lymphokine-activated killer cell activity, (L) 6
Thomas, Matthew L. and Lefrançois, Leo, Differential expression of the leucocyte-common antigen family, 320
Thompson, K.M., Human monoclonal antibodies, 113
Tisch, Roland, Watanabe, Motoo and Hozumi, Nobumichi, The establishment of monoclonal antigen-specific B-cell lines, 145
Torensma, Ruurd and Bij, Wim van der, Limiting HIV infectivity with peptides, (L) 255
Toribio, Maria-Luisa, See Marcos, Miguel A.R., 204
Trentham, David, Autoimmune Rheumatic Disease; Connective Tissue Diseases (3rd Edition), (BR) 32
Trowsdale, John and Campbell, R. Duncan, Physical map of the human HLA region, 34

Umland, Shelby, See O'Garra, Anne, 45

Via, Charles S., and Shearer, Gene M., T-cell interactions in autoimmunity: insights from a murine model of graft-versus-host disease, 207

Wachter, Helmut, See Fuchs, Dietmar, 150
Wagenaar, J.P.A., See Nieuwenhuis, P., 372
Watanabe, Motoo, See Tisch, Roland, 145
Wegmann, Thomas, See Streilein, J. Wayne, (L) 160
Weiner, Howard L., See Cohen, Irun R., 332
Weiss, Arthur, See Goldsmith, Mark A., 220
Werner, Ernst R., See Fuchs, Dietmar, 150
Wick, Georg, See Kroemer, Guido, 163
Willcox, H.N.A., Immunology, Immunopathology and Immunity, (BR) 183
Wilson, Darcy B., Regulatory Idiotypes (Modern Concepts in Immunology, Vol. II), (BR) 31
Wong, Gordon G. and Clark, Steven C., Multiple actions of interleukin 6 within a cytokine network, 137
Wubbena, A.S., See Nieuwenhuis, P, 372

Young, John Ding-E and Liu, Chau-Ching, How do cytotoxic T lymphocytes avoid self-lysis?, 14
Young, John Ding-E and Liu, Chau-Ching, Multiple mechanisms of lymphocyte-mediated killing, 140
Young, John Ding-E and Liu, Chau-Ching, Multiple mechanisms of lymphocyte-mediated killing: A reply, (L) 294

Zinkernagel, Rolf M., Virus-triggered AIDS: a T-cell-mediated immunopathology?, 370

Subject index

(BR): Book review
(L): Letter to the Editor

adenylate cyclase, cell signalling 222
adhesive proteins 109, 199, 213
adjuvant, poly (A).poly (U) (L) 161
adoptive immunotherapy 58, 291, (L) 193
AIDS
  and HIV infectivity (L) 255
  and neopterin 150
  role of T cells in 370
allergy, Allergy an International Textbook (BR) 95
allogenotyping, of HLA class II (L) 256
allografts, and MHC class I (L) 6
antibodies
  to DNA 159
  Fc receptors 185
  gene structure 10
  heteroconjugates 257
  human monoclonal 113, 355
  intracellular injection of 84
  to L3T4 *in vivo* 165
  see also monoclonal antibodies, immunoglobulin
antigen
  access to the thymus 372
  role in autoimunity 341
  on chemically induced mouse tumors 78
  of hepatitis B virus 380
  on murine hematopoietic cells 344
  processing 65, 216, 300
  and self-tolerance 377
  specific B-cell lines 145
  T-cell-dependent B-cell activation 89
  tumor specific 78
  on tumors 167, 363
  variation in malaria 351
  see also T lymphocyte, antigen presentation
antigen presentation
  and autoimmunity 260
  by B cells 89, 300
  in gut epithelium 174
  in intracellular infections 168
  and MHC structure 65
  of MHC molecules 70
  overview 286
  and repertoire selection 308
antigen-presenting cells
  and antigen processing 216
  in the decidua (L) 160
autoimmune myocarditis 117
autoimmune thyroiditis, in OS chickens 163
autoimmunity
  anti-DNA antibodies 159
  Autoimmune Rheumatic Disease (BR) 32
  Autoimmunity and Autoimmune Disease (BR) 155
  Connective Tissue Diseases (BR) 32
  and immunoregulation 260
  mechanism of 341
  and mycobacteria 178
  myocarditis 117
  in OS chickens 163
  rheumatoid arthritis 33, (L) 132
  and T cells 121
  T-cell interactions in 207
  and T-cell vaccination 332
  type 1 diabetes 303

B lymphocytes
  activation of 89
  antigens on 344
  in autoimmunity 341
  cloning 145
  cytological analysis of 1
  development 157
  effects of lymphokines 45
  G proteins in 315
  and hepatitis B virus 380
  human monoclonal antibodies 113, 355
  hypermutation 1
  idiotypes 98
  immunoglobulin gene expression 278
  intracellular signalling in 17
  Ly-1$^+$ 1
  in lymph follicles 240
  lymphoma immunotherapy 167
  migration 43
  molecular biology of 187
  neonatal subsets 204
  regulation by immunoglobulin 300
bacteriology, Fundamentals of Medical Bacteriology and Mycology (BR) 359
B-cell factors, pleiotropic effects of 45
blood, Blood Transfusion (BR) 400
blood typing, with monoclonal antibodies 68, 113
blood-thymus barrier 372

C3, immunoregulation by 387
cachectin, identity with TNF 28
cachexia, and tumor necrosis factor 28
calcitriol, immunological effects of 54
calcium
  and cell activation 17, 157
  and T-cell mitogens 235
cAMP
  and cell signalling 222
  and T-cell mitogens 235
cancer
  Cancer Diagnosis *in vitro* using Monoclonal Antibodies (BR) 326
  immunotherapy with IL-2 58, (L) 193, 291
  immunotherapy 286
  Principles of Cancer Biotherapy (BR) 244
  tumor-associated antigens 363
cardiac myosin, as autoantigen 117
CD antigens
  cross-linking CD4/8 and T-cell receptor 296
  CD4 function *in vivo* 165
  CD4 and HIV infection (L) 255
  CD4$^+$ T-cell subsets 268, 274, (L) 367
  CD45 (LCA) expression 320
  CD45R and T-cell subsets 195, 199
  CD4/8 function 41
  CD4/8 interactions with the T-cell receptor 296
  CD4/8 and T-cell activation 132
  CD4/8 and tolerance induction 329
  CD5$^+$ B cells 204
  CD8$^+$ T cells in intracellular infections 168
  CDw29 and T-cell subsets 195, 199
  cross-reactive antibodies to CD3 (L) 193
  Differentiation Antigens in Lymphohemopoietic Tissues (BR) 283
  interactions with C3 387
  and Ly antigens 344
  structure of CD3 220
cell signalling
  and cAMP 222
  through G proteins 315
  and growth control 157
  and heparan sulfate 267
  and lymphocyte activation 17
  and mitogens 235
  molecular mechanisms 251
cell-mediated immunity, quantification 150
Ceppellini
  Ruggero Ceppellini (1917–1988) 335
chimerism, mixed allogeneic 23
circumsporozoite coat protein, and malaria vaccination 351
clonal deletion
  and repertoire selection 308
  and tolerance induction 329
codon usage, in V_H families (L) 35
colony-stimulating factors 97
complement
  role of C3 387
  Complement (BR) 401
Connective Tissue Diseases (BR) 32
corticosterone, interactions with immune system 163
Coxsackievirus B3, and autoimmune myocarditis 117
cross-linking, CD4/8 and the T-cell receptor 296
cytokines
  and B-cell activation 89
  colony-stimulating factors 97
  and cytology 1
  directional release of 306
  and heparan sulfate 267
  IFN-γ and Shwartzman reaction 37
  IL-2 receptor 36
  nomenclature 366
  overview of IL-6 137
  overview 286
  pleiotropic effects of 45
  receptors for 393
  and T-cell activation 157
  Tumor Necrosis Factor and Related Cytokines (BR) 183
  tumor necrosis factor 28
cytology, lymphocyte analysis 1
cytolysin, 101, 140, (L) 294
cytotoxic T cells
  and HIV infection 370
  in intracellular infections 168, (L) 369
  mechanisms of action 140, (L) 294
  in murine GVHR 207
  and perforin 101
  and self-lysis 14
cytotoxicity
  mechanisms of 140, (L) 294
  and natural killer cells 291
  role of perforin 101
  T cells and self-lysis 14

diabetes, type 1 303
diacyl glycerol, in lymphocytes 17
Differentiation Antigens on Lymphohemopoietic Cells (BR) 283

endocrinology
  immunoendocrine loop 163
  Immunogenetics of Endocrine Disorders (BR) 401
enhancers, of transcription 3

epithelia
and gamma–delta T-cell receptors 72, (L) 368
MHC expression in gut 174
exercise, and the immune system 337
exocytosis, of lymphokines 306
experimental autoimmune encephalomyelitis 332

Fc receptors 185
follicular dendritic cells 240

G proteins, and receptor signalling 315
gastrointestinal tract, Immunology of the Gastrointestinal Tract and Liver (BR) 282
gene expression, in immunoglobulin genes 187
gene families, immunoglobulin 10
gene regulation
of MHC antigens 121
overview 3
genes, immunoglobulin 278
genetic engineering, of monoclonal antibodies 265
germinal centers 240
graft versus host reactions
and I–J 70
role of T cells 207
granulocyte-macrophage colony-stimulating factor 97
gut, MHC class II expression in 174

heart, autoimmune myocarditis 117
heat shock proteins, and inflammation 134
helper T cells
activation of 121
antigen expression on 195, 199
$CD4^+$ rat subsets 74
$CD4^+$ subsets 268
mechanisms of action 89
subsets (L) 367
and T-cell vaccination 332
hematopoiesis
and colony-stimulating factors 97
and lymphokines 137
hematopoietic cells
adhesive protein receptors on 109
antigen expression on 344
Differentiation Antigens in Lymphohemopoietic Tissues (BR) 283
expression of L-CA 320
purification of 376
hematopoietic growth factors 267
hepatitis B virus, antigens of 380
heparan sulfate, and cell signalling 267
histocompatibility testing
use of RFLPs 18
new techniques 127
history
Immunology Today 1980–1988 285
immunology in the 1980s 286
HLA
class II allogenotyping (L) 256
disease associations 121
expression in skin 104
genotyping 18
histocompatibility testing 127
HLA-A2 structure 65, 121, 127
isotype mismatching 76
map of 34
homing, to the spleen 43
HSPs, and inflammation 134
human immunodeficiency virus
diagnosis with neopterin 150
limiting infectivity (L) 255
models of 370
Humphrey, John H. Humphrey (1915–1988) 100, (L) 194
hybridomas
for human antibodies 113
production 355
hypermutation, in B-cell development 1

ICAM-1, and LFA-1 213
idiotypes
practical use 98
Regulatory Idiotypes (BR) 31
I–J 70
immunization, poly(A).poly(U) as an adjuvant (L) 161
immunodeficiency
modeling HIV infection 370
due to overexercise 337
after trauma 253
immunoendocrinology 163
immunogenetics
Immunogenetics of Endocrine Disorders (BR) 401
and rheumatoid arthritis (L) 132
immunoglobulin
antigen-specific B-cell lines 145
association of MHC and IgE receptor 218
class switching 187
codon usage (L) 35
gene expression 278
idiotypic 98
regulatory role of 300
V region gene usage 10
see also antibodies, monoclonal antibodies
immunoglobulin superfamily
adhesive proteins 109
ICAM-1 213
interactions between 199
Thy-1 107
immunologic privilege (L) 160
immunology
Advanced Immunology (BR) 155
and exercise 337
Immune Recognition (BR) 401
Immunology of the Gastrointestinal Tract and Liver (BR) 282
Immunology, Immunopathology and Immunity (BR) 183
Immunology a Short Course (BR) 182
Immunology: a Synthesis (BR) 282
and Immunology Today 285
in Italy 247
Nutrition and Immunology (BR) 402
in the 1980s 286
immunoparasitology, malaria 351
Immunopathology of the Skin (BR) 63
immunoregulation
and autoimmunity 260
by C3 387
and cAMP-dependent protein kinase A 222
and exercise 337
and heat shock 134
immunoendocrine systems 163
immunotherapy
with antibody heteroconjugates 257
with colony-stimulating factors 97
with idiotypes 98
with IL-2 58, (L) 193, 291
manipulating monoclonal antibodies 265
Principles of Cancer Biotherapy (BR) 244
targeting T cells 167
in vitro immunization 355
infection, Clinical Approach to Infection in the Compromised Host (BR) 360
inflammation
and calcitriol 54
and heat shock proteins 134
Inflammation: Basic Principles and Clinical Correlates (BR) 327
Shwartzman reaction 37
inositol trisphosphate
and cell signalling 251
and G proteins 315
in lymphocytes 17
insulin receptor kinase, antibodies to 84
integrins
on hematopoietic cells 109
LFA-1 213
interferons
effects of gamma 45
gamma and microbial infection (L) 369
gamma and the Shwartzman reaction 37
Lymphokines and Interferons (BR) 120
receptors for 393
interleukins
action of IL-3 97
IL-1 and Shwartzman reaction 37
IL-1 and T-cell activation (L) 131
IL-2 receptor structure 36
IL-6 overview 137
immunotherapy with IL-2 (L) 193, 291, 58
molecular action 157
nomenclature 366
overview 286
pleiotropic effects of 45
irradiation, lethal whole body 23
isotype mismatching, in MHC dimers 76
Italy, immunology in 247

keratinocyte, proliferation 104

L3T4, function *in vivo* 165
LAK cells
characterization 291
immunotherapy with 58, (L) 193
and Leu-OMe (L) 6
large granular lymphocytes 291
leukocyte-common antigen 320
Leu-OMe, and human monoclonal antibodies 355
LFA-1, and ICAM-1 213
liver, Immunology of the Gastrointestinal Tract and Liver (BR) 282
L-leucine-methyl ester (L) 6
Ly antigens
$Ly\text{-}1^+$ B cells 1
Ly-24 expression 7
on mouse hematopoietic cells 344
neonatal $Ly\text{-}1^+$ B cells 204
and T-cell activation 41
lymph follicle 240
lymphocytes
developmental pathways of 286
Lymphocytes: a Practical Approach (BR) 245
lymphocytic choriomeningitis virus 370
lymphokines
and $CD4^+$ T-cell subsets 268, (L) 367
directional release of 306
overview of IL-6 137
killer cell activation (L) 6, 291
Lymphokines and Interferons (BR) 120
Lymphokines (BR) 401
nomenclature 366
overview 286
pleiotropic effects of 45
Recombinant Lymphokines and their Receptors (BR) 95

lymphoma, targeting T cells to 167

Mac, histocompatibility testing 127
macrophage colony-stimulating factor 97
malaria, vaccine development 351
mast cells, G proteins in 315
matrix
  cell adhesion to 109
  and hematopoietic cells 267
Medawar, Sir Peter Medawar (1915–1987) 4
membrane, receptor complexes 218
memory T cells 195
MHC
  allogenotyping (L) 256
  antigen presentation in the uterus (L) 160
  and antigen processing 216
  association with IgE receptor 218
  binding to CD4/8 132
  development of restriction 377
  expression in gut epithelium 174
  histocompatibility testing 127
  HLA genotyping 18
  HLA region map 34
  interaction with Mls 230
  structure and antigen presentation 65
  susceptibility to rheumatoid arthritis 33
  and T-cell repertoires 308
  and transplantation tolerance 342
  role in type 1 diabetes 303
  unrestricted killer cells 58, (L) 193, 291
MHC class I, soluble antigens (L) 6
MHC class II, linking GVHD and I–J 70
molecular structure 76
microbial infection, and $CD8^+$ T cells 168, (L) 369
microenvironments, in lymph follicles 240
migration, of lymphocytes 43
mitogens, and T-cell activation 235
Mls locus
  genetics of 125
  and repertoire selection 308
  and T-cell activation 230
  and tolerance induction 377
model, of HIV infection 370
molecular biology
  Immunochemical Methods in Cell and Molecular Biology (BR) 360
  and transplantation tolerance 342
molecular mimicry 178
monoclonal antibodies
  and blood typing 68
  Cancer Diagnosis *in vitro* using Monoclonal Antibodies (BR) 326
  cross-linking surface antigens 296
  cross-reactive with CD3 (L) 193
  genetic engineering of 265
  heteroconjugates 257
  human 113, 355
  to human tumor antigens 363
  to mouse hematopoietic cell antigens 344
  to tumor antigens 167
  see also antibodies, immunoglobulin
monocytes
  actions of interferons on 393
  G proteins in 315
Morris, Bede Morris (1927–1988) 364
mouse, hematopoietic cell antigens 344
multiple sclerosis, Multiple Sclerosis: Immunologic, Diagnostic and Therapeutic Aspects (BR) 243
mutagenesis, site directed 3
mycobacteria
  and autoimmunity 178
  $CD8^+$ T cells against 168, (L) 369
mycology, Fundamentals of Medical Bacteriology and Mycology (BR) 359
myocarditis 117
myosin, as autoantigen 117

naive T cells 195
natural killer cells
  characteristics of 291
  mechanisms of action 140, (L) 294
neonatal lymphocyte subsets 204
neopterin, and cell-mediated immunity 150
neuroimmunology, Clinical Neuroimmunology (BR) 243
NF-κB, and immunoglobulin gene expression 278
nutrition, Nutrition and Immunology (BR) 402

obituary
  Ruggero Ceppellini (1917–1988) 355
  John H. Humphrey (1915–1988) 100
  Sir Peter Medawar (1915–1987) 4
  Bede Morris (1927–1988) 364
oncogenes, tumor antigens 363
OS chickens, immunoendocrine feedback loop 163
OX-22, rat $CD4^+$ T cells 274

parasitology 351
perforin 101, 140, 294 (L)
Pgp-1, expression 7
poly (A).poly (U), as an adjuvant (L) 161
polyclonal activation, and autoimmunity 341
pore-forming proteins 140, (L) 294
positive selection, and repertoire selection 308, 377
privilege, in the thymus 372
protein function, and intracellular antibody injection 84
protein kinase A, and cell signalling 222
protein kinase C 251, 315

ras, antibodies against 84
rat, $CD4^+$ T-cell subsets 274
receptors
  for adhesive proteins 107
  antibodies to insulin receptor 84
  for C3 387
  for Fc 185
  and G proteins 315
  gamma–delta T-cell receptors 72, (L) 368
  for IgE 218
  for interferons 393
  interleukin 2 36
  LFA-1 and ICAM-1 213
  for natural killer cells 291
  and protein kinase A signalling 222
  Recombinant Lymphokines and their Receptors (BR) 95
  and signal transduction 251
Recombinant Lymphokines and their Receptors (BR) 95
recombination, in immunoglobulin genes 187
Regulatory Idiotypes (BR) 31
repertoire selection
  B cells 300
  and CD4/8 296
  and Mls 230
  modelling type 1 diabetes 303
  in the neonate 204
  overview 308, 329
  and thymic structure 189, 372
  and the thymus 377
restriction fragment length polymorphisms, HLA genotyping 18
Rh system, and human monoclonal antibodies 113
rheumatoid arthritis
  Autoimmune Rheumatic Disease (BR) 32
  immunogenetics of (L) 132
  susceptibility to 33
  and T-cell vaccination 332

second messengers
  cAMP 222
  and G proteins 315
  in lymphocytes 17
  and T-cell mitogens 235
self-tolerance, through clonal deletion 329
Shwartzman reaction 37
signal transduction
  and CD3 220
  and cell activation 157, 251
  and G proteins 315
  and interferons 393
  in lymphocyte activation 17
  and protein kinase A 222
  during T-cell activation 235
skin disease
  Immunopathology of the skin (BR) 63
  and keratinocyte proliferation 104
somatic cell genetics 3
spleen, and lymphocyte migration 43
splicing, differential 320
stem cells, purification of 376
stress
  heat shock proteins 134
  and the immune response 253
surface immunoglobulin
  'coexpression' of CD3 (L) 193
  expression by cell lines 145
surveillance
  and gamma–delta T-cell receptors (L) 368
  and T-cell receptors 72
susceptibility
  to mycobacteria 178
  to rheumatoid arthritis 33
systemic lupus erythematosus
  lupus-like disease in rats 207
  possible mechanisms 340

T lymphocytes
  activation of B cells 89
  in AIDS 370
  antigen presentation 65
  antigen recognition 286
  antigens on 344
  in autoimmunity 341
  $CD4^+$ subsets 268, 274, (L) 367
  cytological analysis of 1
  differentiation 7, 329
  effects of calcitriol on 54
  G proteins in 315
  generation 189, (L) 367
  and hepatitis B virus 380
  IL-2 receptors 36
  immunoglobulin superfamily expression 199
  interactions in autoimmunity 207
  and intracellular microbes 168, (L) 369
  intracellular signalling in 17
  $L3T4^+$ cell function 165
  Ly-24 expression 7
  and lymphokine

secretion 306
and malaria vaccines 351
migration 43
and Mls locus 230
naive and memory 195
neonatal subsets 204
perforin in 101
production of lymphokines 45
repertoire selection 189, 308, (L) 367, 377
self-lysis 14
signal transduction 220
subsets 195, 199
surface antigens 41
tolerance induction 329
vaccination with 332
T200, (L-CA) expression 320
Tac epitope 36
T-cell receptors
cytological analysis 1
gamma–delta receptors 72, (L) 368
interaction with CD4/8 296
and Mls 125
recognition of MHC fragments 70
repertoire selection 308
signalling 220
specificity of 41
structure and activation 121
and T-cell activation 157
thymic education 375, 377
and tolerance induction 329
techniques
Immunochemical Methods in Cell and Molecular Biology (BR) 360
human monoclonal antibody production 355
Thy-1, expression of 107, 344
thymocytes, Ly-24 expression 7
thymus
access of antigen to 372
function of 189, (L) 367
and repertoire selection 296, 308
and T-cell maturation 377
and tolerance induction 308, 329
T-lymphocyte activation
and CD4/8 132
in health and disease 121
and IL-1 (L) 131
by mitogens 235
and neopterin 150
overview 157
and surface antigens 41
tolerance
clinical 23
and MHC class I (L) 6
to transplantation 342
tolerance induction
through clonal deletion 329
modelling type 1 diabetes 303
overview 308
and thymic structure 189, 372
and the thymus (L) 367, 377
total lymphoid irradiation 23
toxins, perforin 101, 140, (L) 294
transcription, of immunoglobulin genes 278
transfusion
Blood Transfusion (BR) 400
blood typing 68, 113
transgenic mice
and diabetes modelling 303
Thy-1 expression 107
transmembrane signalling 17, 222, 235, 251
transplantation
and mixed allogeneic chimerism 23
stem cell purification 376
tolerance to 342
transplantation antigens, on chemically induced tumors 78
trauma, and the immune response 253
tumor necrosis factor
overview 28
and the Shwartzman reaction 37
Tumor Necrosis Factor and Related Cytokines (BR) 183
tumors
and antibody heteroconjugates 257
antigens on 167
'coexpression' of CD3 and sIg (L) 193
immunotherapy of 363
LAK therapy 58, (L) 193
targeting T cells to 167
transplantation antigens on 78

vaccines
for malaria 351
overview 286
poly (A).poly (U) as an adjuvant (L) 161
T-cell vaccination 332
variable regions
codon usage (L) 35
immunoglobulin genes 10
virus
hepatitis B 380
LCMV and HIV infections 370
neopterin and AIDS 150
vitamin D, immunobiology of 54
VLA proteins 109

wasting, and tumor necrosis factor 28
wound healing 104